

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in this application.

1. (Currently Amended) A method for removing boron from silicon, comprising heating metal silicon containing boron as an impurity to a temperature ranging from the melting point of silicon to 2200°C to place it in a molten state, then adding a solid ~~mainly comprising~~ consisting essentially of silicon dioxide and a solid ~~mainly comprising~~ consisting essentially of one or both of a carbonate of an alkali metal or a hydrate of a carbonate of an alkali metal into said molten silicon so as to form a slag on said molten silicon and remove the boron from the silicon.

2. (Original) The method for removing boron from silicon as set forth in claim 1, further comprising discharging the formed slag.

3. (Currently Amended) The method for removing boron from silicon as set forth in claim 2, wherein the interval from adding the solid ~~mainly comprising~~ consisting essentially of silicon dioxide and the solid ~~mainly comprising~~ consisting essentially of one or both of a carbonate of an alkali metal or a hydrate of a carbonate of an alkali metal to then discharging the formed slag is 5 minutes or more.

4. (Currently Amended) The method for removing boron from silicon as set forth in claim 1, further comprising simultaneously adding the solid ~~mainly comprising~~ consisting essentially of silicon dioxide and the solid ~~mainly comprising~~ consisting essentially of one or both of a carbonate of an alkali metal or a hydrate of a carbonate of an alkali metal.

5. (Currently Amended) The method for removing boron from silicon as set forth in claim 1, further comprising separately adding the solid ~~mainly comprising~~ consisting essentially of silicon dioxide and the solid ~~mainly comprising~~ consisting essentially of one or both of a carbonate of an alkali metal or a hydrate of a carbonate of an alkali metal.

6. (Original) The method for removing boron from silicon as set forth in claim 5, wherein the interval of said addition is within 30 minutes.

7. (Currently Amended) The method for removing boron from silicon as set forth in claim 1, further comprising adding the solid ~~mainly comprising~~ consisting essentially of silicon dioxide and the solid ~~mainly comprising~~ consisting essentially of one or both of a carbonate of an alkali metal or a hydrate of a carbonate of an alkali metal, divided into two or more operations.

8. (Currently Amended) The method for removing boron from silicon as set forth in claim 7, further comprising discharging already formed slag, then newly adding the solid ~~mainly comprising~~ consisting essentially of silicon dioxide and the solid ~~mainly comprising~~ consisting essentially of one or both of a carbonate of an alkali metal or a hydrate of a carbonate of an alkali metal.

9. (Currently Amended) The method for removing boron from silicon as set forth in claim 8, wherein the interval from when adding the solid ~~mainly comprising~~ consisting essentially of silicon dioxide and the solid ~~mainly comprising~~ consisting essentially of one or both of a carbonate of an alkali metal or a hydrate of a carbonate of an alkali metal to molten silicon to then discharging the formed slag is 5 minutes or more.

10. (Currently Amended) The method for removing boron from silicon as set forth in claim 8, further comprising performing the process of adding the solid ~~mainly comprising~~ consisting essentially of silicon dioxide and the solid ~~mainly comprising~~ consisting essentially of one or both of a carbonate of an alkali metal or a hydrate of a carbonate of an alkali metal to form slag, then discharging the slag a plurality of times.

11. (Currently Amended) The method for removing boron from silicon as set forth in claim 10, wherein while performing the processing of adding the solid ~~mainly comprising~~ consisting essentially of silicon dioxide and the solid ~~mainly comprising~~ consisting essentially of one or both of a carbonate of an alkali metal or a hydrate of a carbonate of an alkali metal to form slag, then discharging the slag a plurality of times, the concentration of boron in the molten silicon becomes 1 mass ppm or less.

12. (Currently Amended) The method for removing boron from silicon as set forth in claim 1, the amounts of addition of the solid ~~mainly comprising~~ consisting essentially of silicon dioxide and the solid ~~mainly comprising~~ consisting essentially of one or both of a carbonate of an alkali metal or a hydrate of a carbonate of an alkali metal are amounts whereby the formed slag does not completely cover the surface of the molten silicon.

13. (Original) The method for removing boron from silicon as set forth in claim 1, wherein a mole of silicon in the silicon dioxide added is 0.05 to 20 times the mole of the alkali element in one or both of the carbonate of an alkali metal and the hydrate of a carbonate of an alkali metal.

14. (Original) The method for removing boron from silicon as set forth in claim 1, wherein the alkali element of one or both of the carbonate of an alkali metal and the hydrate of a carbonate of an alkali metal is one or more of lithium, sodium, and potassium.

15. (Original) The method for removing boron from silicon as set forth in claim 14, wherein one or both of the carbonate of an alkali metal and the hydrate of a carbonate of an alkali metal is one or more of lithium carbonate, sodium carbonate, potassium carbonate, lithium bicarbonate, sodium bicarbonate, potassium bicarbonate, or their hydrates.

16. (Original) The method for removing boron from silicon as set forth in claim 1, further comprising adding an additive for increasing a viscosity of the formed slag.